strictly in view, he shall strive, days in advance, to put his matter into the most intelligible and attractive form. It should be remembered, too, that in the oral presentation of a subject before a friendly audience, it is better to give the hearers a chance to ask for more information, if they want it, or for fuller proof of statements made, if they think it needed, than to overwhelm and deaden them from the outset with a mass of details and an elaboration of argument.

Edwin H. Hall,
Vice-president of Section B.

THE ST. LOUIS CONGRESS OF ARTS AND SCIENCE.

To the Editor of Science: By chance, I had at first overlooked Professor Dewey's reply (Science, November 20) to my letter concerning the St. Louis Congress (Science, October 30). My answer thus comes late, but fortunately, the matter itself needs no further word, since all the questions involved, as far as they are of scientific import, were fully disposed of in my long letter. But Professor Dewey, in spite of the friendly tone of my answer, has now introduced in a most surprising manner a personal element, and that forces me to send a word of reply after all. He does not discuss the statements of my letter, by which practically all of his previous objections are proved futile, but he now turns the question so as to make it appear that I have made claims in my May article in the *Atlantic Monthly* which I had no right to make; he even ends with the climax that excuses are due from me to the editor and the readers of the *Atlantic*.

I had claimed in the *Atlantic* that the program of the congress adopted by the proper authorities involved a certain philosophical standpoint and a certain logical view of the sciences. When Professor Dewey expressed in his first remarks the idea that the program might exclude those who hold other views, I used the chief part of my reply to show that such a fear is unjustified. I showed that a man may have any views as to the logical relations of the sciences, and yet contribute in his special section with full freedom in spite of the framework of our program. It is evident that my article and my letter harmonize perfectly. But Professor Dewey considers the fact that I did not speak of the philosophical bearing once more in my letter as a kind of confession that such bearing does not and probably never did exist.

I did not repeat my assertion because I had stated the case very fully in the *Atlantic;* but there was not the slightest reason to withdraw a single word. No one who understands anything of methodology can see the program without observing that it has a meaning as a whole only when certain philosophical views are accepted. In the meetings of the boards for final decision I explained the logical reasons for this specific classification fully, and, accustomed to the rhythmical attacks of Professor Dewey on my philosophy, I pointed out why a philosophy like his would appear to me an unsatisfactory basis for the work of the congress and why an idealistic program was essential. Perhaps I may add an external proof of the correctness of my assertions. When my exposition of the situation had appeared in the *Atlantic Monthly,* the director of the congresses asked me to allow it to be reprinted as a pamphlet for official distribution—in short, if Professor Dewey insists that apologies are due in connection with my *Atlantic Monthly* essay, it seems clear that they are not due to the editor and to the readers, but to the contributor. Hugo Münsterberg.

Harvard University,
December 3, 1903.

RIGHT-HANDEDNESS: A PRIMITIVE AUSTRALIAN THEORY.

The attempts of primitive peoples to explain biological or physiological facts are not always of a purely mythic order. The blacks of the Tully River, North Queensland, Dr. Roth (*N. Queensl. Ethnogr. Bull.,* No. 5, 1903, p. 25) informs us, 'say, that at actual birth, according as the child presents its face to the left or to the right, so will it be left- or right-handed throughout life.' This seems a clear instance of aboriginal 'scientific' reasoning, and the theory deserves record at least in the history of the discussion of the question.

The blacks of the Pennefather River account

for right-handedness and left-handedness in quite a different way. According to their belief, Anjea, the mythological fashioner of babies makes them all right-handed, but Thunder (who really existed before Anjea and made him) can also form infants and, whenever he makes any, they are all left-handed.

ALEXANDER F. CHAMBERLAIN.
CLARK UNIVERSITY,
November 6, 1903.

SOCIETIES AND ACADEMIES.

NEW YORK ACADEMY OF SCIENCES. SECTION OF GEOLOGY AND MINERALOGY.

THE regular meeting of the section was held on November 16 at the American Museum of Natural History. The first business was the election of officers for the year 1904, and Professor James F. Kemp was elected chairman, and Dr. Edmund Otis Hovey, secretary.

The first paper of the evening was by Doctor A. W. Grabau, of Columbia University, and was entitled 'Discussion of and Suggestions Regarding a New Classification of Rocks.' The speaker said in part that all classification ought, as far as possible, to be genetic or according to progressive development. Such a classification is practicable in the biologic sciences, but not in those which, like mineralogy, deal with inorganic substances. In developing his theme the speaker suggested the following provisional subdivisions: Endogenetic rocks, or those formed by chemical means, and exogenetic or clastic rocks, which are chiefly of mechanical origin. The first group was further subdivided into pyrogenic or igneous rocks; hydrogenic or aqueous rocks; biogenic or organic rocks. The hydrogenic and biogenic rocks were each again subdivided into rocks of calcareous, silicious, ferruginous, carbonaceous and miscellaneous composition; and a further subdivision was made into unaltered and altered or metamorphic types.

The exogenic or clastic rocks were divided into autoclastic, hydroclastic, pyroclastic, bioclastic and anemoclastic.

A further subdivision according to texture was into rudaceous or conglomeratic, arenaceous or sandy, and lutaceous or mud rock.

The next division was according to composition into two main groups, silicious and calcareous, and finally into unconsolidated and consolidated and metamorphic rocks.

In the discussion of the paper Professor Stevenson spoke of the value of such a classification through its giving to teachers ideas for presentation to their classes regarding the interrelations of rock. Professor Kemp spoke of the system as being well adapted to geologic study on account of its giving the surroundings in which any specified rock has developed, although it is not practicable to assign a place to every small rock group which is really of mineralogical rather than of geological value.

The second paper of the evening was by Wallace Goold Levison, 'Notes on Fluorescent Gems.' The author said, in abstract:

Fluorescence, or the property of reducing the wave-length of certain luminous rays, enhances the beauty of a few colored gems under conditions which lessen the effectiveness of others that do not possess this property. Garnet, for instance, which is non-fluorescent, loses its rich crimson color and becomes dull gray in pure blue light. On the contrary, most kinds of ruby and ruby spinel and pink topaz respond to light rays above the red on account of their fluorescence, and in blue-violet light still display their characteristic tints. The red color of the ruby is somewhat developed by the light of the air-gap spark and an uncovered Crookes tube. It is intensely excited by the cathode rays. Willemite displays a beautiful greenish-yellow color not only in ordinary light rich in the yellow-green rays, but also in light consisting chiefly or wholly of the more refrangible colors in which its characteristic color would be effaced but for the possession of fluorescence in high degree. This mineral is excited furthermore by some of the ultra-violet rays and by the Roentgen and Becquerel rays.

Other materials which owe desirable tints to fluorescence are pearl, opal, hyalite, chalcedony and kunzite (the new lilac spodumene). Hiddenite, the green spodumene, seems to be non-fluorescent. Impaired by fluorescence are